

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Canceled).

Claim 2 (Currently amended). The purified and isolated polynucleotide ~~as claimed in claim 1,~~
which comprises a DNA sequence coding for a protein glucose transporter 4 with valine at
position 85 substituted with methionine GLUT4V85M, wherein said DNA sequence comprises
the nucleotide sequence of SEQ ID NO:1

Claim 3 (Previously presented). The purified and isolated polynucleotide as claimed in claim 2,
wherein the protein GLUT4V85M comprises the amino acid sequence according to SEQ ID NO.
2.

Claim 4 (Currently amended). The purified and isolated polynucleotide as claimed in claim ~~1~~
2 wherein the DNA sequence encoding for the GLUT4V85M protein is operationally linked to a
promoter .

Claim 5 (Previously presented). The purified and isolated polynucleotide as claimed in claim 1
wherein said DNA sequence comprises a nucleotide sequence that hybridizes under stringent
conditions to the nucleotide sequence of SEQ ID NO:1.

Claim 6 (Previously presented). An expression vector comprising the purified and isolated
polynucleotide of claim 4.

Claim 7 – 11 (Canceled).

Claim 12 (Currently amended). ~~A yeast cell from~~ An isolated *Saccharomyces cerevisiae* yeast cell in which all glucose transporters are no longer ~~function-~~ functional, and which contains no functional ~~*Erg4*~~ *Erg4* protein, wherein said yeast cell is transformed with the expression vector of claim 4.

Claim 13 (Previously presented). The transformed yeast cell of claim 12, deposited as DSM15185.

Claim 14. (Currently amended). The transformed yeast cell as claimed in claim 12, further lacking functional ~~*Egy1*~~ *Egy1* protein.

Claim 15 (Previously presented). The transformed *Saccharomyces cerevisiae* yeast cell of claim 14, deposited as DSM15186 .

Claim 16. (Previously presented) The purified isolated polynucleotide of claim 2, wherein the DNA sequence that encodes the GLUT4V85M protein is operationally linked to a promoter.

Claim 17 (Currently amended) A process of preparing a an isolated *Saccharomyces cerevisiae* yeast cell which (i) expresses a GLUT4V85M protein comprising the amino acid sequence of SEQ ID NO:2, (ii) does not contain a functional glucose transporter, and (iii) lacks functional *Erg4* protein, the process comprising the steps of

- a) providing a yeast cell from *Saccharomyces cerevisiae*, wherein all glucose transporters are no longer functional and which contains no functional *Erg4* protein,
- b) providing an expression vector that comprises the nucleotide sequence of SEQ ID NO:1 operationally linked with a promoter and
- c) transforming the yeast cell of a) with the expression vector of b).

Claim 18. (Previously presented). The isolated polynucleotide of Claim 5, wherein the DNA sequence that encodes the GLUT4V85M protein is operationally linked to a promoter.

Claim 19. (Previously presented). An expression vector comprising the isolated polynucleotide of claim 16.

Claim 20. (Previously presented) An expression vector comprising the isolated polynucleotide of claim 18.

Claim 21 (Previously presented). A process of preparing a *Saccharomyces cerevisiae* yeast cell which (i) expresses a GLUT4V85M protein comprising the amino acid sequence of SEQ ID NO:2, (ii) does not contain a functional glucose transporter, (iii) lacks functional *Erg4* protein, and (iv) lacks functional *Fgy1* protein, the process comprising the steps of:

- a) providing a yeast cell from *Saccharomyces cerevisiae*, wherein all glucose transporters are no longer functional, which contains no functional *Erg4* protein, and which contains no functional *Fgy1* protein, and
- b) providing an expression vector that comprises the nucleotide sequence of SEQ ID NO:1 operationally linked with a promoter and transforming the yeast cell of step (a) with the expression vector of step (b).

Claim 22 (Previously presented). A *Saccharomyces cerevisiae* yeast cell whose glucose transporters in their entirety are no longer functional, transformed with the expression vector of claim 6.

Claim 23 (Previously presented). The yeast cell as claimed in claim 22, wherein said DNA sequence of said expression vector comprises the nucleotide sequence of SEQ ID NO:1, and said GLUT4V85M protein comprises the amino acid sequence of SEQ ID NO:2.

Claim 24 (Previously presented). The yeast cell as claimed in claim 23, deposited as *Saccharomyces cerevisiae* DSM 15188.

Claim 25 (Previously presented). A process of preparing *Saccharomyces cerevisiae* yeast cell as claimed in claim 22 which comprises the steps:

- a) producing a *Saccharomyces cerevisiae* yeast cell whose glucose transporters in their entirety are no longer functional,
- b) providing an expression vector that comprises a purified and isolated polynucleotide comprising a DNA sequence that encodes a GLUT4V85M protein,
- c) transforming the yeast cell of step (a) with the expression vector of step (b).

Claim 26 (Previously presented). An isolated polynucleotide that encodes a polypeptide comprising the amino acid sequence of SEQ ID NO:2

Claim 27 (Previously presented). The isolated polynucleotide of claim 26, comprising the DNA sequence of SEQ ID NO:1.

Claim 28- 36 (Canceled)

Claim 37 (Previously presented). An expression vector comprising the isolated polynucleotide of claim 3.

Claim 38 (Previously presented). A *Saccharomyces cerevisiae* yeast cell whose glucose transporters in their entirety are no longer functional, transformed with the expression vector of claim 37.

Claim 39. (Currently amended) The transformed yeast cell of claim 39 38, which lacks functional *Erg4* protein.

Claim 40. (Currently amended). The transformed yeast cell of Claim 39 38, which lacks functional *Fgy4* protein.

Claim 41-43 (Canceled)

Claim 44. (Previously presented) The transformed *Saccharomyces cerevisiae* yeast cell of Claim 40, as deposited as *Saccharomyces cerevisiae* DSM 15186.